MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2019/2020

BAC3674 – ADVANCED MANAGEMENT ACCOUNTING
(All sections / Groups)

10 JUNE 2020

9.00 a.m – 12.00 p.m.
(3 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 7 pages (excluding cover page) with 4 questions only.
2. Attempt **ALL FOUR** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

Part A

Dian Auto Parts (DAP) has a Seat Manufacturing Department that uses Activity based costing (ABC). DAP's activity cost allocation rates include the following:

Activity	Allocation Base	Activity Cost Allocation Rate (RM)
Machining	Number of machine hours	30.00 per machine hour
Assembling	Number of parts	0.50 per part
Packaging	Number of finished seats	0.90 per finished seat

Suppose Ford has asked for a bid on 50,000 built-in baby seats that would be installed as an option on some Ford SUVs. Each seat has 20 parts, and the direct materials cost per seat is RM11 . The job would require 10,000 direct labor hours at a labor wage rate of RM25 per hour. In addition, DAP will use a total of 400 machine hours to fabricate some of the parts required for the seats.

Required:

a) Compute the total cost of producing and packaging 50,000 baby seats. Also compute the average cost per seat. (7 marks)

b) For bidding, DAP adds a 30% markup to total production cost. What price will the company bid for the Ford order? (1 mark)

c) Suppose that instead of an ABC system, DAP has a traditional product costing system that allocates manufacturing overhead at a plant-wide overhead rate of RM65 per direct labor hour. The baby seat order will require 10,000 direct labor hours. Compute the total cost of producing the baby seats and the average cost per seat. What price will DAP bid using this system's total production cost plus 30% mark up? (5 marks)

d) Use your answers to (b) and (c) to explain how ABC can help DAP make a better decision about the bid price it will offer Ford. (2 marks)

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Part B

As the new manager of a local fitness club, Fitness-for-Life, you have been studying the club's financial data. You would like to determine how the club 's costs behave in order to make accurate predictions for next year. Here is information from the last six months:

Month	**Club Membership (number of members)**	**Total Operating Costs**	**Average Operating Costs per Member**
July	450	RM 8,900	RM19.78
August	480	RM 9,800	RM20.42
September	500	RM10,100	RM20.20
October	550	RM10,150	RM18.45
November	560	RM10,500	RM18.75
December	525	RM10,200	RM19.43

Required:

a) By looking at the Total Operating Costs and the Average Operating Costs per Member, can you tell whether the club's operating costs are variable, fixed, or mixed? Explain your answer. (1 mark)

b) Use the high-low method to determine the club's monthly operating cost equation. (3 marks)

c) Using your answer from (a), predict total monthly operating costs if the club has 600 members. (2 marks)

d) Can you predict total monthly operating costs if the club has 3,000 members? Explain your answer. (1 mark)

e) Prepare the club's traditional income statement and its contribution margin income statement for the month of July. Assume that your cost equation from (b) accurately describes the club's cost behavior. The club charges members RM30 per month for unlimited access to its facilities**.** (3 marks)

[Total: 25 marks]

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QUESTION 2

The following table contains actual segment data for two of SarsiCo's geographic divisions 2020 Operating Data (all figures are in millions of RM):

	Europe and Sub-Saharan Africa (ESSA) (RM Million)	**Asia, Middle East, and North Africa (AMENA) (RM Million)**
Operating Income	1,081	941
Assets	12,225	5,901
Revenue	10,510	6,375

Required:

a) Compute each division's ROI. (2 marks)

b) Compute each division's sales margin. (2 marks)

c) Compute each division's capital(assets) turnover. (2 marks)

d) Comment on the results of the preceding calculations. (5 marks)

e) Compute each division's residual income, assuming upper management desires a 25% minimum rate of return. (6 marks)

f) What are the benefits and problems with using ROI as a performance measure? (4 marks)

g) What are the benefits and problems of using residual income as a performance measure? (4 marks)

[Total: 25 marks]

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QUESTION 3

Part A

MCE Pharmaceuticals Bhd (MCE) manufactures a wide variety of drugs for use in hospitals. The purchasing manager has recently been approached by a new manufacturer based in India who has offered to produce three of the drugs at their factory. The following cost and price information has been provided.

	Drug A	**Drug B**	**Drug C**
Production (units)	40,000	80,000	160,000
	RM	**RM**	**RM**
Direct material cost per unit	1.60	2.00	0.80
Direct labour cost per unit	3.20	3.60	1.60
Direct expense per unit	0.80	1.20	0.40
Fixed cost per unit	1.60	2.00	0.80
Selling price per unit	8.00	10.00	4.00
Imported price per unit	5.50	8.40	4.00

Required:

a) Calculate the profit figure the company will make by producing all the drugs itself. (4 marks)

b) Recommend to the management whether any drugs should be purchased on the basis of relevant cost only. (5 marks)

c) How will your recommendation in (b) above affect the profit and by how much? (2 marks)

d) Explain the other five factors that the management should consider before making a final decision. (5 marks)

e) Briefly explain outsourcing and outline three factors that have led to a growth in the use of outsourcing. (4 marks)

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Part B

An integral part of the overall organizational decision support system is the cost control system, which is the set of formal and informal tools and methods designed to manage organizational costs. The cost control system provides information for planning and control from the point activities are being planned until after they are performed.

Required:

Discuss the various elements of cost consciousness in the cost control process.

(5 marks)

[Total: 25 marks]

QUESTION 4

Part A

NCO Berhad (NCO) is a manufacturer of high-quality tools for those working in the engineering industry. The mission statement of the company declares that it is dedicated to maximising the wealth of its shareholders and, since it was formed in 2019, the company has grown rapidly. Recently, the company has developed a new type of drill and the directors of the company are now considering whether this drill should be manufactured and sold.

The following information is available to help evaluate the viability of the new product:

i. Costs incurred in designing and developing the new drill, which have all been paid, were RM300,000. These costs are to be written off in equal instalments against profits generated over the new product's expected life of four years.

ii. Sales are expected to be 20,000 drills per year over the next four years. The selling price of each drill will be RM50 in the first three years and RM40 in the final year.

iii. Variable operating costs are estimated to be RM20 for each drill.

iv. Additional fixed operating costs are expected to be RM250,000 per year.

v. New equipment costing RM500,000 (with estimated salvage value of RM20,000 at the end of year 4) has to be purchased immediately to produce the new product. The equipment will be sold at the end of four years for RM10,000.

vi. Additional working capital of RM150,000 will be required immediately to support the manufacture of the new product. This will be released at the end of the life of the new product.

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The company uses the net present value method to evaluate new investment opportunities.

The company uses a cost of capital of 10%.

The present value of RM1 is as below:

Year	1	2	3	4
Discount rate (10%)	0.909	0.826	0.751	0.683

Assume that NCO is subject to a 20% corporation tax and that all cash flows occur at the end of the year except for the initial investment. Also assume that straight-line depreciation is used for tax purposes and that any tax associated with the disposal of machinery occurs at the same time of the related transaction.

Required:

a) Determine the relevant after tax cash flows for the production of new drills at each of the following three points:
   i) project initiation, (2 marks)
   ii) project operation, (6 marks)
   iii) project disposal. (2 marks)

b) Based on the calculations in (a), use the net present value method to determine whether NCO should produce the new drills. (5 marks)

c) Evaluate the investment criteria adopted by the business against discounted payback method and state, with reasons, why NPV method should prevail and the new drill should be produced. (5 marks)

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Part B

PPK Sdn. Bhd. is a company involved in the injection molding process of plastic extruders. The company had a process of inspection, checking line work and handling returns from customers to identify and correct quality problems. Scrapped extruders were ground into powder and fed back to the extruders as raw material; thus all scrapped extruders were reused at some point. The company's cost accounting system indicated that the cost of scrap was "zero," a view also held by PPK's management.

Required:

Define briefly cost of quality categories.

(5 marks)

[Total:25 marks]

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